



**MEMORANDUM**

**Transportation & Development – CC Memo No. 12-037**

**DATE:** APRIL 5, 2012

**TO:** MAYOR AND CITY COUNCIL

**THRU:** RICH DLUGAS, CITY MANAGER *RD*  
PATRICK MCDERMOTT, ASSISTANT CITY MANAGER *PM*  
R.J. ZEDER, TRANSPORTATION & DEVELOPMENT DIRECTOR *RJZ*  
JEFF KURTZ, PLANNING ADMINISTRATOR *JK*  
KEVIN MAYO, PLANNING MANAGER *KM*

**FROM:** BILL DERMODY, SENIOR CITY PLANNER *BD*

**SUBJECT:** ZUP11-0038 HAMILTON HIGH WIRELESS FACILITY – VERIZON

**Request:** Use Permit approval to install a wireless communication facility on a ballfield light pole

**Location:** Northwest corner of Ocotillo Road and Arizona Avenue

**Applicant:** Reliant Land Services (for Verizon Wireless)

**Owner:** Chandler Unified School District

**Zoning:** Agricultural District (AG-1)

**RECOMMENDATION**

Planning Commission and Staff, finding consistency with the General Plan, recommend approval subject to conditions.

**BACKGROUND**

The application requests Use Permit approval to install a wireless communication facility on top of a ball field light pole on the campus of Hamilton High School. The facility would be the third service provider on campus, all located on the football field's light poles south of the school buildings. A Use Permit is required because it would be the third of the football field's light poles to have a wireless communication facility (each pole has one provider), whereas the Zoning Code – encouraging co-location – allows only two light poles on a single field to be used

for that purpose without a Use Permit. A Use Permit is also required because the facility would not be on the farthest available light pole from residential neighbors.

The subject facility would be located on the northernmost pole of the three poles along the western side of Hamilton High School's football field, approximately 430' from the nearest residential property (to the west). The 36-acre school site is surrounded to the west and north by single-family residential subdivisions. Commercially-zoned properties are located to the east and south across Arizona Avenue and Ocotillo Road. The football field is in the south-central part of the site. Two other wireless communication facilities currently exist on the football field's ballfield lights, one on the west side and one on the east side of the field, each at about midfield.

The subject request involves replacing an existing ballfield light pole with a similarly sized light pole equipped to handle the wireless communication facility's antennas and associated ground wiring. A new ground equipment compound will be constructed nearby with a solid 12'-high block wall exterior and a chain link roof cover. The 8'-high panel antennas will be placed at a height of approximately 59' above grade and will be flush-mounted to the extent possible with 1'-long arm mounts. Elevations of the proposed facility are among the memo attachments.

The applicant has evaluated the possibility of co-locating on one of the other ballfield light poles already used for a wireless communication facility, but has found this option impractical even though it would not require a Use Permit. According to the application materials, adding a second provider on one of these poles would require a new, extra wide pole to accommodate the mixed 3G/4G infrastructure that Verizon seeks. The applicant states that such a pole would look very unnatural and pose structural difficulties.

Within the immediate area, there are no other suitable alternatives for co-location of the wireless communication facilities on existing poles or towers. According to information provided by the applicant as required by code, there are five (5) sets of verticalities of a height similar to or greater than the proposed facility within one (1) mile. The applicant has analyzed these co-location possibilities and found them implausible. One set of verticalities, the football field light poles already used for wireless communication facilities, is discussed above. Two of the verticalities, the SRP substation 1/3 mile to the southeast and the SRP power poles 1/4 mile to the east, are too far from the targeted service area (i.e. the neighborhoods located northwest of the subject site). The bell tower at the Desert Palms Church to the southeast is both too far south of the targeted service area and too short. The 85'-high Crown Castle monopole located approximately 1/2 mile to the northeast is too far north and east of the targeted service area.

## **DISCUSSION**

Planning Commission and Staff find the proposed location to be appropriate for a wireless communication facility attached to ballfield lights. The location approximately 430' from the nearest residential uses is positive. Though the Zoning Code encourages co-location on one of the other light poles already used for a wireless facility, Planning Commission and Staff concur with the applicant's belief that an extra-wide pole would not be aesthetically desirable and that the use of a third pole is preferable.

**PUBLIC/NEIGHBORHOOD NOTIFICATION**

- This request was noticed according to the provisions of the City of Chandler Zoning Code.
- A neighborhood meeting was held on March 8, 2012 at the First Baptist Church at 3405 S. Arizona Avenue. One neighbor, a representative of the First Baptist Church, attended to receive general information about the application.
- At the time of this writing, Staff is not aware of any opposition to the request.

**PLANNING COMMISSION VOTE REPORT**

Motion to approve:

In Favor: 7      Opposed: 0

**RECOMMENDED ACTION**

Planning Commission and Staff, upon finding consistency with the General Plan, recommend approval of ZUP11-0038 HAMILTON HIGH WIRELESS FACILITY – VERIZON subject to the following condition:

1. Development shall be in substantial conformance with approved exhibits except as modified by condition herein. Expansion or modification of the use beyond approved exhibits shall void the Use Permit and require new Use Permit application and approval.

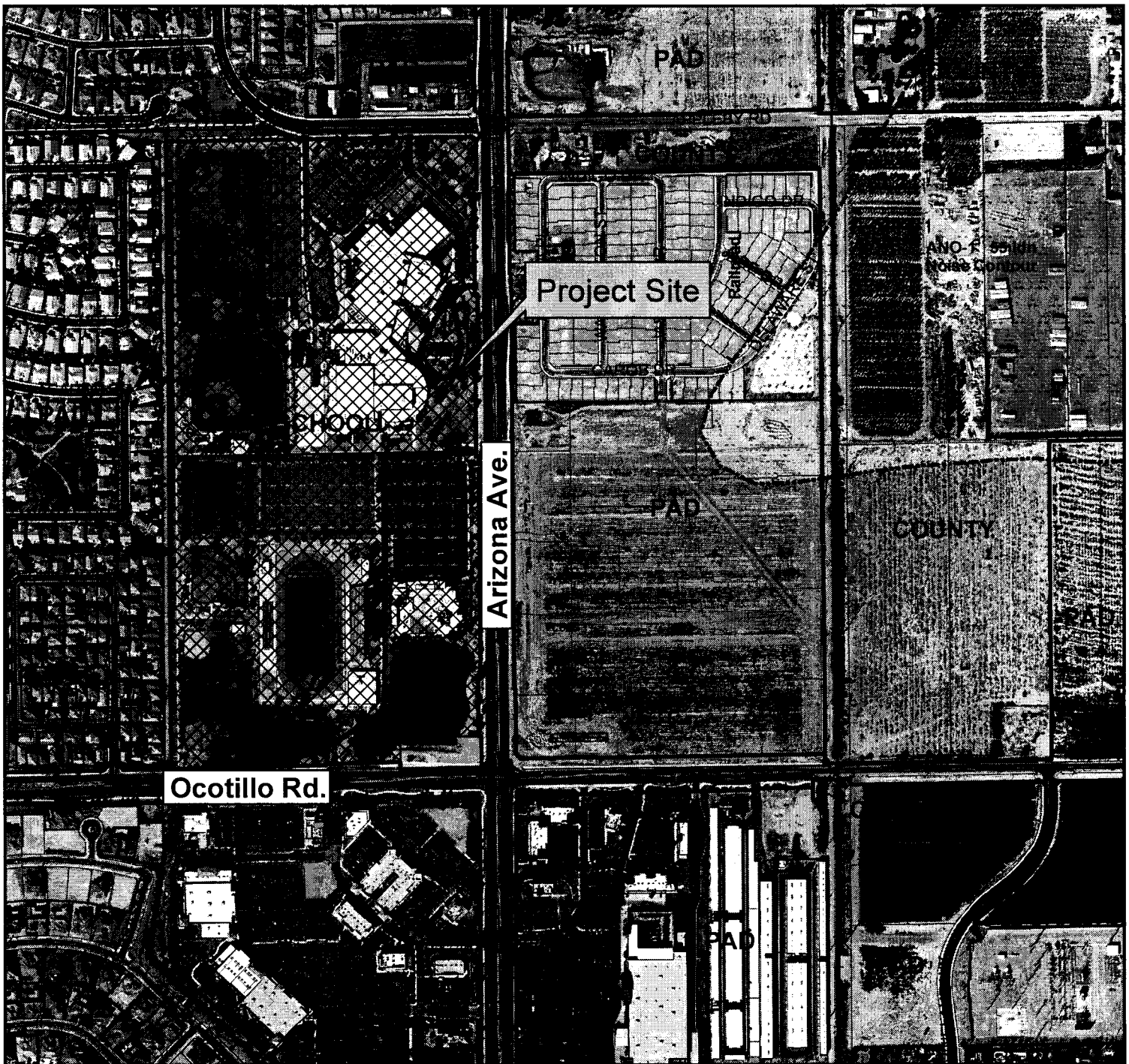
**PROPOSED MOTION**

Move to approve ZUP11-0038 HAMILTON HIGH WIRELESS FACILITY – VERIZON Use Permit for a wireless communication facility, subject to the condition recommended by Planning Commission and Staff.

**Attachments**

1. Vicinity Maps
2. Site Plan and Elevations
3. Narrative
4. Inventory of Existing Verticalities within 1 Mile
5. Map of Site's Existing Facilities



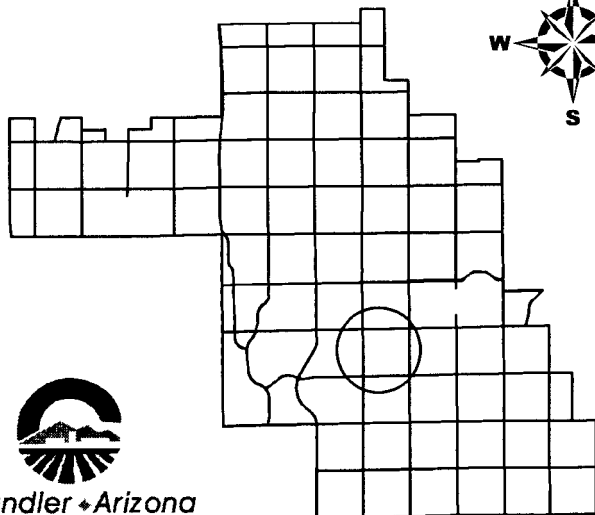


Ocotillo Rd.

Arizona Ave.

Project Site

## Vicinity Map



ZUP11-0038

**Hamilton High School  
Wireless Facility-Verizon**



**Chandler • Arizona**  
*Where Values Make The Difference*

CITY OF CHANDLER 12/9/2011



SITE NAME: PHO SOUTH SHORE



- SHEET INDEX**
- 1-1 PROJECT INFORMATION AND DATA
  - 1-2 SITE PLAN
  - 2-1 SITE PLAN
  - 2-2 FINISHED PLAN
  - 2-3 PROJECT ELEVATIONS

**CLIENT**

VERIZON WIRELESS  
175 S. GARDEN DR.  
CHANDLER, ARIZONA 85226  
PHONE: (480) 396-8444

**OWNER**

CHANDLER UNITED SCHOOL DISTRICT  
1525 N. GARDEN DR.  
CHANDLER, ARIZONA 85226  
PHONE: (480) 224-3145

**PROJECT DESCRIPTION**

THIS PROJECT CONSISTS OF THE PLACEMENT OF A PERMITTED STATE APPROVED EQUIPMENT SHELTER WITH A SECONDARY LIGHT POLE. NO NEW UTILITIES ARE TO BE INSTALLED OR DEVELOPMENT AND CONSTRUCTION OF THIS PROJECT WILL CONFLICT WITH ALL APPLICABLE CODES AND ORDINANCES. THIS PROJECT DOES NOT INCLUDE WATER OR SEWER CONNECTIONS. THIS PROJECT INCLUDES PERMANENT TELEPHONE AND ELECTRONIC EXISTING PLUMBING IS NOT AFFECTED BY THIS PROJECT.

**PERMITS**

PERMIT LAND SERVICES, INC.  
2000 N. GARDEN DR. SUITE 200  
CHANDLER, ARIZONA 85226  
PHONE: (480) 548-9700

**CONTRACT**

MR. JASON, INC.  
4815 E. ARIZONA ST., SUITE 104  
CHANDLER, ARIZONA 85226  
PHONE: (480) 864-2100

**PROJECT LOCATION**

PHO SOUTH SHORE, TOWN OF PHOENIX, ARIZONA  
1230 S.F.

**PERMITS**

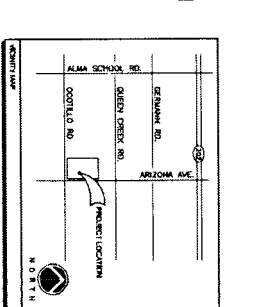
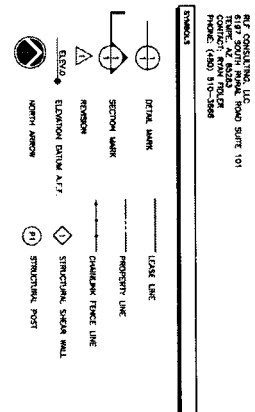
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1230 S.F.



175 S. GARDEN DR., TOWN OF PHOENIX, AZ 85226

VERIZON WIRELESS

SHEET INDEX	
CONSTRUCTION INFORMATION	DATE
PERMITS	DATE
FINISHED PLAN	DATE
ELEVATIONS	DATE

175 S. GARDEN DR., TOWN OF PHOENIX, AZ 85226

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THIS DRAWING AND ANY INFORMATION CONTAINED HEREIN IS THE PROPERTY OF VERIZON WIRELESS AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM VERIZON WIRELESS.

PROJECT NUMBER: 1118

DATE: 11/18

175 S. GARDEN DR., TOWN OF PHOENIX, AZ 85226

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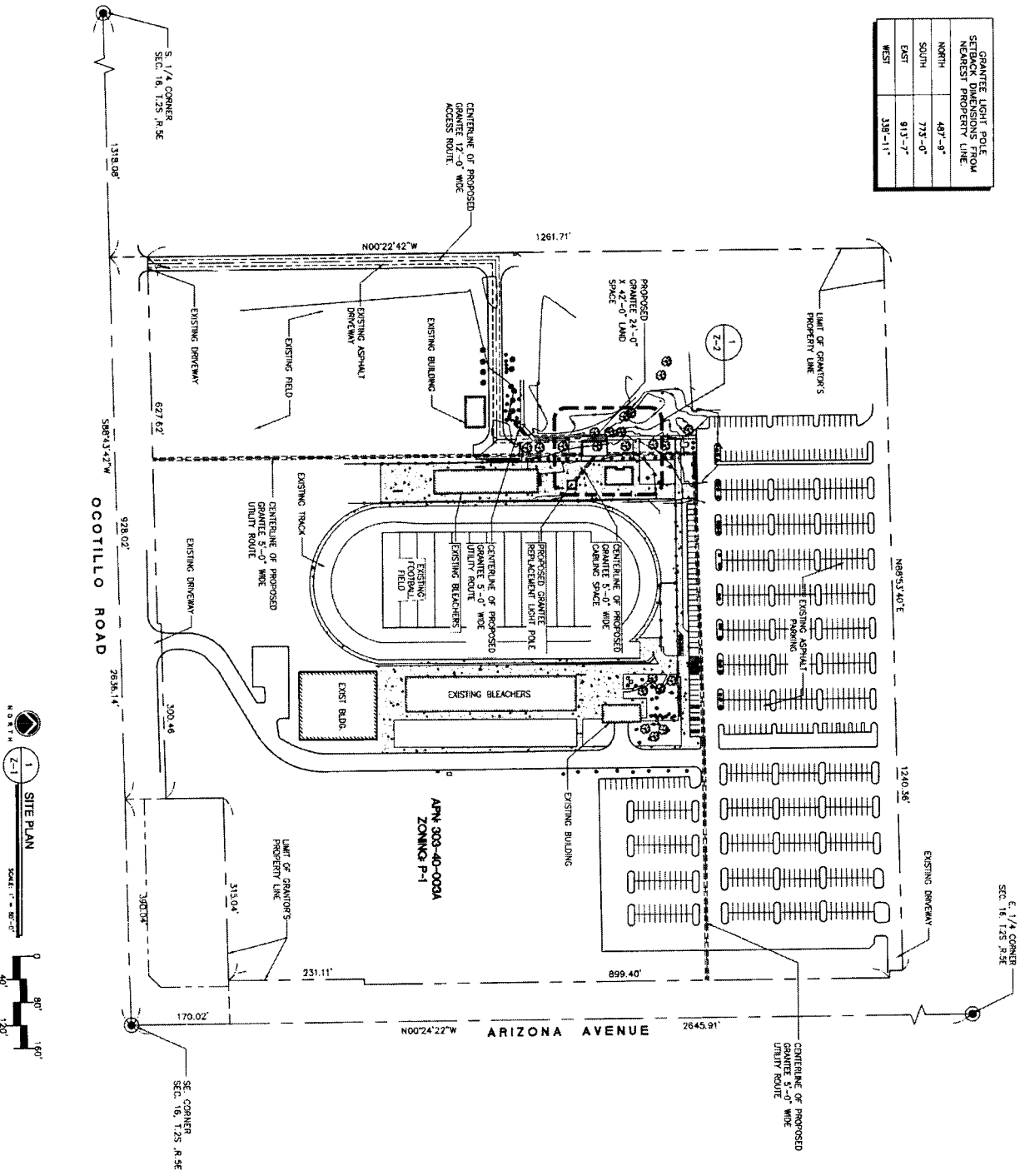
PROJECT NUMBER: 1118

DATE: 11/18

T-1



GRANTEE LIGHT POLE SETBACK DIMENSIONS FROM NEAREST PROPERTY LINE	
NORTH	48'-8"
SOUTH	775'-0"
EAST	913'-7"
WEST	338'-11"



DATE	REVISION
	1. INITIAL REVIEW
	2. DESIGN REVIEW
	3. PERMIT REVIEW
	4. CONSTRUCTION REVIEW
	5. FINAL REVIEW



4801 E. MONROE ST., AUSTIN, TEXAS 78745  
 PHONE: (512) 344-1111 FAX: (512) 344-1112  
 WWW.RKENGINEERING.COM

PROJECT NUMBER	DATE	BY	CHK
PHO SOUTH SHORE	11/18/11	SK	SK

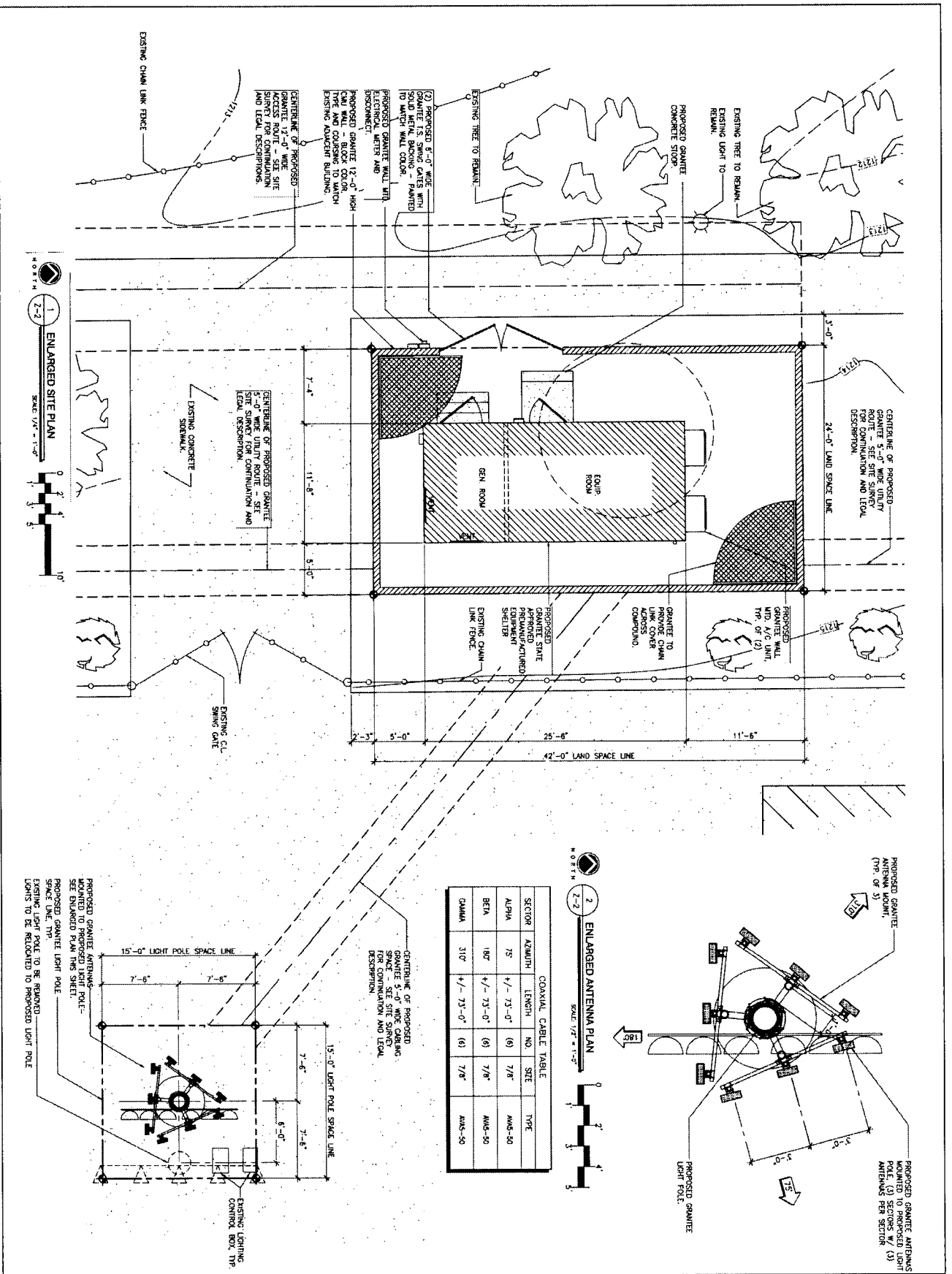
PROJECT NAME

PHO SOUTH SHORE

8808 S. ARIZONA AVE.  
 CHANDLER, AZ 85248

Z-1







1208 W. GEMINI DR., TEMPE, AZ 85283

INTERNET, MOBILE	
CONSTRUCTION MATERIAL	DM
IN SIGNATURE	DM
REAL ESTATE SIGNATURE	DM
COMPANY SIGNATURE	DM



11

4430 E. BROADWAY ST., #104 MESA, AZ 85206  
PHONE: (602) 964-1112 FAX: (602) 964-8065

PROJECT NUMBER	DRIVEN BY	CHRD
11195	BR	BR

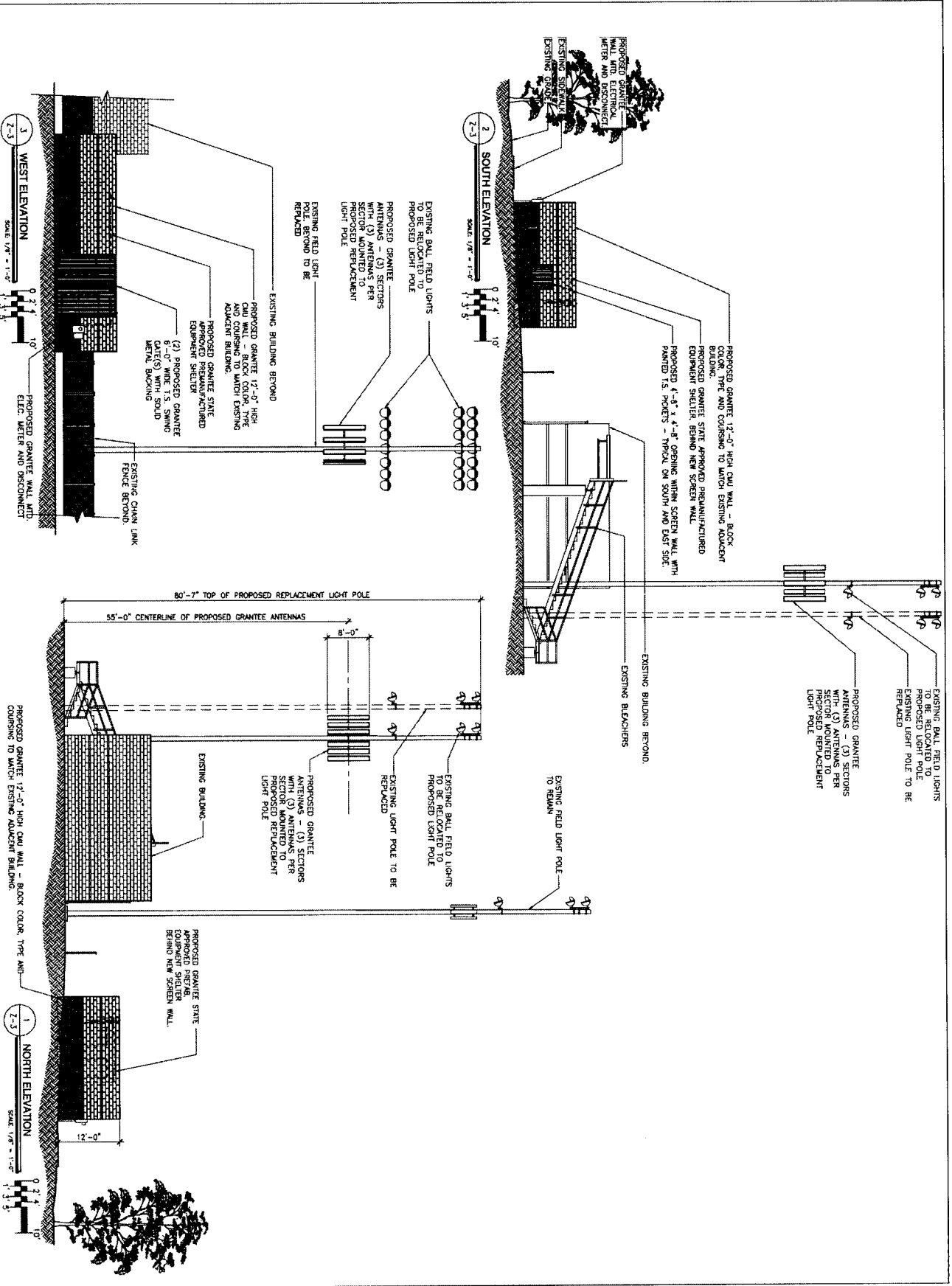
  

REMARKS	
08/22/1	ISSUE TO CLIENT
1/22/1	ISSUE FOR SUBMITTAL
8/22/12	CLIENT COMMENTS
8/22/12	CLIENT COMMENTS
8/22/12	CRV COMMENTS

**PHO SOUTH  
SHORE**

SITE ADDRESS  
3808 S. ARIZONA AVE.  
CHANDLER, AZ. 85248

## PROJECT ELEVATIONS

[illegible]N  
3

# PROJECT NARRATIVE

FOR

## Verizon Wireless PHO South Shore— Ball Field Light Replacement

3838 S. Arizona Ave  
Chandler, AZ 85248  
Hamilton High Football Field  
APN: 303-40-003A  
Jurisdiction: Chandler  
Zoning: SCHOOL



Submitted by:  
Reg Destree

Reliant Land Services, Inc.  
3200 N. Hayden Road, Ste. 205  
Scottsdale, AZ 85251  
602-349-6930 (mobile)  
602-453-0002 (fax)  
Reg.destree@rlsusa.com

October 23, 2011

## **Purpose of Application**

As part of its ongoing effort to maintain the pre-eminent wireless network in Chandler, Verizon Wireless is proposing to place a new wireless telecommunications facility at Hamilton High School just northwest of the football field. This site will greatly improve capacity and in-building coverage in the surrounding area as well as allow for better provisioning of the latest 4G LTE technology.

Verizon has been receiving complaints of poor call quality, dropped calls and poor data speed in the area around this site, especially the homes to the west and northwest. This site will help to offload several surrounding sites which will improve both call quality and data speeds while reducing the incidence of dropped calls.

## **Site Description**

The subject parcel is a large parcel that constitutes the south half of Hamilton High. It is currently developed with the Football field, a practice field, several softball fields, a track & field area, the aquatic center and a large parking lot.

The area to the West of this parcel is residential. That development is over 400' away from this site with 20'-30' trees, a softball field and a driveway in between. To the North is the main school building and several athletic fields. To the east across Arizona Avenue is a new commercial development and to the south across Ocotillo is another commercial development.

## **Site History**

Verizon Wireless has been working on a site in this area for over a year and this site was selected based on its location and compatibility with the Chandler Ordinance.

Much consideration was made in this area toward collocation including the existing SRP substation 1/3 mile southeast of Arizona & Ocotillo but that location was too far southeast to offer improvement in the houses to the west of the school. The SRP poles along the railroad were also considered but are too far east and offer inferior coverage within the residential areas north and west of the proposed site.

New tower builds were considered at the Commercial areas east of Arizona Ave and south of Ocotillo however the Chandler Ordinance shows a clear preference for collocation where possible.

After the options for collocation and new builds off the school site were considered, Verizon proposed a stealth tree structure near the ball field at Hamilton High. Verizon needs the antenna array to be a minimum of 6' wide due to its multiple technologies and frequency bands which was the reason Verizon initially proposed a tree. After reviewing the application, staff indicated that use of a ball field light would be more appropriate.

The application is now for collocation on a replacement ball field light. The ball field light option is more in line with the letter and intent of the Ordinance and certainly better suited for this particular location.

Staff also requested that we further explore collocation on one of the two existing ball field lights at the school but collocating a second carrier on these poles causes two issues. First, the replacement pole would be visually obtrusive as it would have two antenna arrays and two light arrays extending off of it. It would basically look like a 100' cell site with four arrays on it rather than a ball field light being used to limit visual obtrusiveness. Even more problematic is the girth of a new multi-carrier pole; due to two carriers routing coaxial cable through the same pole and the structural requirements of placing two carriers on an

already tall light pole the girth of the structure becomes substantial and replacing a different ball field light will be less noticeable.

Once it was determined that a new replacement pole was most appropriate both poles on the north end of the field were considered. After several visits with the School District it was determined that this location on the northwest side of the field would work best for the District and Verizon. There is not a good location for the ground equipment near the light at the northeast corner of the field. The ground enclosure will be less obtrusive and less noticeable on the northwest corner. Due to the distance from homes to the west, there is also no appreciable visual difference between the northwest and northeast pole locations. The existing light poles on the 50 yard line are over 20' taller than this pole so the replacement pole won't greatly alter the existing view.

Ultimately after reviewing the area it was determined this replacement ball field light on the northwest side of the field offered the best option for placement of a facility that would both meet Verizon's needs and the intent of the Chandler Ordinance.

### **Description of Proposal**

The proposed site development includes replacement of an existing 80' ball field light with a new 80' ball field light capable of accommodating Verizon's antennas. There will be no increase in the height of the ball field light pole. The replacement pole will be a few feet away from the existing pole and the existing lights will be moved and re-aimed as needed. The Verizon radio equipment and emergency generator will be secured in a State-approved pre-manufactured equipment shelter (12' x 26'). A new 12' block wall will surround the entire shelter compound and completely conceal the shelter from view. This wall will be painted to match the adjacent restroom facility. Coaxial cable will be routed underground from the equipment and feed up through the pole.

Access to the shelter compound is via the existing school access road from Ocotillo and the existing parking lot. This site will not increase traffic in this area as it is visited approximately once every 4-6 weeks after construction is complete.

### **Conclusion**

Since there are already two carriers on separate ball field lights at the field, this type of facility requires a Use Permit in a School zoning district. If there was only one other carrier this site would likely only require Administrative Approval. This site as proposed meets the intent of the Ordinance and Verizon Wireless is seeking Approval of the requested Use Permit. This site will benefit residents, visitors, local businesses and their customers in this part of Chandler.

# Existing Verticality Review

FOR

## Verizon Wireless PHO South Shore— Ball Field Light Replacement

3838 S. Arizona Ave  
Chandler, AZ 85248  
Hamilton High Football Field  
APN: 303-40-003A  
Jurisdiction: Chandler  
Zoning: SCHOOL

As part of the application process on this site a review was done of all existing verticality that might be suitable for collocation within one mile of the proposed ball field light at Hamilton High School. This form is a more in-depth explanation of why the existing verticality outside of the school site would not work to fill the coverage need for Verizon Wireless.

The attached map has a one mile radius from the proposed site called out and it shows the proposed site (PHO South Shore) along with existing verticality within and near the one mile radius. It also shows the surrounding Verizon sites to the N, NW, SW, S and SE.

The existing vertical elements within one mile of the proposed ball field light replacement are:

SRP 130' Poles: There is a line of SRP 130' power poles running along the east side of the Union Pacific Railroad (UPRR) line. This extends from the northernmost point of the review area to just south of Ocotillo. There is a second 130' pole line that runs northeast from Schrader substation, crosses Appleby & Ocotillo then runs east along the north side of Ocotillo. These poles are all too far east to offer good coverage within the residential areas to the north and west of Hamilton High School. These residential areas are a major objective of this ring and currently experience capacity and coverage issues as they are on the edge of three separate site coverage areas.

SRP 75' Poles: These poles are currently being installed on the west side of UPRR railroad. They are about 100' west of the 130' poles and run from the northernmost point of the review area to the southernmost point. These poles are also too far east to offer good coverage within the residential areas northwest of HHS.

SRP Schrader Substation: This substation is located in the southeast portion of the review area. There are multiple poles of various sizes within the substation. Like the SRP lines this site does not offer good coverage northwest of HHS. This site also starts to get too close to existing Verizon site PHO Cuchara on Chandler Heights and overlap coverage quite a bit to the south.

Desert Palms Church: This existing church on the east side of Arizona Avenue south of Ocotillo is the closest verticality to the school property. There is a 40' bell tower on the building. This site is too far south to offer good coverage to the area north of HHS and also the 40' height of the bell tower (even if extended slightly) is not as effective as the height that can be achieved by locating on the ball field light at the school. In addition there are some limitations that exist from placing antennas inside a small bell tower such as the one at the church. Both the amount of antennas and the directions in which they can face can become greatly restricted.

Crown Castle 85' Monopole: This was actually the first option considered when this search area was first issued and it is too far to the north and east to effectively cover the areas west and northwest of HHS. It does offer decent coverage to the north and northeast but does not hit the main developed residential areas.

AT&T & TMO @ HHS: AT&T and T-Mobile are located on each of the ball field lights on the 50 yard line east and west of the field. Their existing collocation on the ball field lights meant Verizon would had to consider one of the other four light poles already at the school. These two carriers being at this location helps demonstrate the fact this type of Wireless Facility is historically consistent with the intent and letter of the Chandler Ordinance and this is a logical location for carriers.

AT&T 55' Parking Lot Light w/canister: This site is to the east of the review area and does not work due to the distance. In addition, the site type with two separate canisters atop a replaced parking lot light does not allow for Verizon's antennas to be collocated on the site. This site is actually included more to demonstrate that the need to place sites fairly close to each other due to capacity in the area is not an issue exclusive to Verizon.



